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THE RESIDUAL EFFECT OF SPELLING APPROACHES.
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THIS STUDY PROPOSED TO DETERMINE THE RELATIVE RESIDUAL EFFECTS OF A STRUCTURAL-PHONIC APPROACH AND A THEMATIC APPROACH UPON THE SPELLING SKILLS OF CHILDREN. OF THE STUDENTS IN THE STUDY POPULATION, 30 HAD RECEIVED SECOND-GRADE INSTRUCTION BY THE STRUCTURAL-PHONIC APPROACH AND 35 BY THE THEMATIC APPROACH. AT THE CONCLUSION OF THE SECOND-GRADE INSTRUCTION, THE MEAN SPELLING SCORE OF THE TOTAL POPULATION HAD INDICATED NO SIGNIFICANT DIFFERENCE BETWEEN THE TWO GROUPS, AND SUB-GROUP ANALYSIS HAD REVEALED NO SIGNIFICANT DIFFERENCE BETWEEN GROUPS IN THE 90-110 AND 111-140 I.Q. RANGES. THE INFORMAL TEST IN THE PRESENT STUDY, GIVEN IN OCTOBER OF THE FOLLOWING SCHOOL TERM, CONSISTED OF RANDOMLY-SELECTED WORDS WHICH APPEARED IN THE SECOND-GRADE TEXTBOOKS. RESULTS INDICATED THAT STUDENTS TAUGHT BY A STRUCTURAL-PHONIC APPROACH BENEFIT MORE FROM RESIDUAL EFFECTS THAN THOSE TAUGHT BY A THEMATIC APPROACH. LITTLE OR NO LOSS IN SPELLING ABILITY SEEMS TO OCCUR WHEN SPELLING IS TAUGHT BY A STRUCTURAL-PHONIC APPROACH, AND TRANSFER APPARENTLY OCCURS MORE READILY WHEN THIS APPROACH IS USED. THE SMALL POPULATION IN THIS STUDY PRECLUDES BROAD GENERALIZATIONS CONCERNING RESIDUAL EFFECTS OF THE TWO APPROACHES. (SEE TE 000 387 FOR AUTHOR'S BASIC STUDY.) (RD)

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The Residual Effect of Spelling Approaches

Purpose of the Study

The purpose of this study was to determine the residual effect of a structural-phonic spelling approach compared with a thematic approach. The hypothesis tested was: Children taught through a structural-phonic approach[1] would not be significantly better in spelling than children taught through a thematic approach[2] after instruction has been interrupted for four months. Essentially, the study investigated the retention of spelling skill after instruction for one year was interrupted for a period of four months.

Population of the Study

The children comprising the population of this study completed Grade II in two laboratory schools of Central Connecticut State College. The groups were homogeneous in that no significant statistical differences existed among them in chronological age and intelligence as measured by Kuhlmann-Anderson Test, Form B, published by Personnel Press, 1963, and revised in 1964.

Table I presents the data relevant to the population

Table I

Population Data

Approach		N	Mean C.A.	Mean I.Q.
Structural-Phonic	(SP)	30	7-4	111.1
Thematic	(T)	35	7-5	112.1

[1]The structural-phonic approach as represented by Harper/Row Spellers.

[2]The thematic approach as represented by American Book Company Spellers.

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The population of this study was essentially the same as the one comprising Research Project LA-S1, referred to as the original spelling study. Excluded from this study, however, were children who completed the spelling experiment in June, 1966, but attended summer school or received specific academic help during the summer.

In June, 1966, at the conclusion of the original study, the mean spelling score of the total population indicated no significant difference between the two groups: SP = 3.82 and T = 3.59, on the basis of standardized test scores.

Sub-group analysis of June, 1966 results indicated no significant differences between groups in the 111-140 I.Q. range: SP = 4.23 and T = 3.86; and no significant difference existed between groups in the 90-110 I.Q. range: SP = 3.42 and T = 3.28, on the basis of standardized test scores.

Study Design Factors

This study tested children's ability to spell words after an interruption of teaching for four months. Prior to the interruption, the SP group had received instruction with a structural-phonic approach for one year. The T group had been instructed with a thematic approach for one year. An informal test, consisting of Grade II words that appeared in the SP and T series (selected at random), was administered in October. Table II indicates the words selected.

Table II

Informal Test

Words in Harper/Row (8)	Words in American Book (8)	Words Common to Both Series (14)	
ate	all	bed	look
bag	are	bird	made
cane	fast	doll	make
cap	head	fish	many
loud	jump	fun	now
mouth	name	good	ride
neck	night	long	your
worm	water		

Test Results

Results of the informal test are indicated in Table III.

Table III

Informal Test Results

	I.Q. 111-140			I.Q. 90-110		
Approach	N	Mean # Correct/30	F	N	Mean # Correct/30	F
Structural-Phonic (SP)	15	24.1*	2.59	15	21.8*	2.53
Thematic (T)	17	20.6		18	18.5	

*Significant at .05 level.

Tabular F value for the 111-140 I.Q. group determining significance with 14 and 16 degrees of freedom = 2.41 at the .05 level. The value of F = 2.59 indicates significant difference and the hypothesis of no difference is rejected. The SP group performed significantly better than the T group.

Tabular F value for the 90-110 I.Q. group determining significance with 14 and 17 degrees of freedom = 2.33 at the .05 level. The value of F = 2.53 indicated significant difference and the hypothesis of no difference is rejected. The SP group performed significantly better than the T group.

Conclusions

Statistical analysis revealed that a significant difference existed between the SP and T groups in both the 111-140 and the 90-110 I.Q. ranges. The implications here are the the SP groups are significantly better spellers and the hypothesis of no difference is rejected.

The study indicated that the residual effect of teaching and applying language skills is greater than that afforded by a whole word approach. To some extent the study indicated that the application and transfer of skills is more effectively accomplished through a systematic, structural-phonic approach.

Obviously, the population of this study is small, hence, generalizations should be minimized. It does, however, indicate possibilities for replication with a larger population.

Researcher's Comments

The results of this study indicate that children taught through a structural-phonic approach benefited from the residual effects when compared to a group taught through a thematic approach. In essence, the teaching of spelling skills, structure of words, and principles governing the spelling of words appears to be a significantly better approach to teaching spelling than through a basic memorization technique.

This study tends to indicate that little or no loss occurs in spelling ability when it is taught through a structural-phonic approach. Apparently, transfer occurs more readily in an SP approach and thereby enhances the total learning process. Further research is needed concerning this effect on words that follow phonetic principles as compared to "non-phonetic" words. Also, the writer emphasizes that broad generalizations concerning residual effects cannot be made because of the small population in this study.